

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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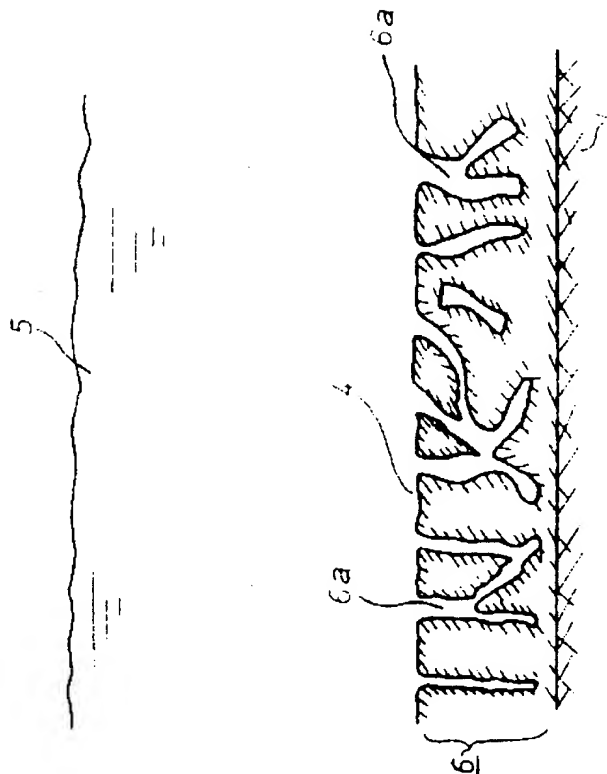
APPLICATION DATE : 21-02-79  
APPLICATION NUMBER : 54020033

APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : OKUYA MASAYUKI;

INT.CL. : C25D 7/00 C25D 3/04 F28F 13/00

TITLE : PRODUCTION OF BOILING HEAT  
TRANSFER SURFACE



ABSTRACT : PURPOSE: To readily and inexpensively produce even boiling heat transfer surface by forming a porous plating layer on the surface of the heat transfer substrate.

CONSTITUTION: A heat transfer substrate 1 is dipped in an electroplating bath of chromic acid anhydride and with this as cathode, the electrolytic chrome plating layer of the specified thickness is formed. Thence, if electrolytic etching is applied for the specified time with the heat transfer substrate as anode, multiple voids 6a are evenly formed in the plating layer which then becomes porous. When the resultant heat transfer substrate is contacted with liquid 5 and is heated, the vapor bubbles generated from the porous plating layer 6 elute into the liquid from the boiling heat transfer surface 4 and at the same time the new liquid is supplied into the voids 6a and therefore the heat transfer efficiency improves considerably.

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